CLAIMS

We claim:

1. A computer-readable medium having stored thereon computer-executable instructions for carrying out a method comprising:

creating a master session over a first connection through a server; and

creating a virtual channel over the connection, the virtual channel operable to communicate a feature session.

2. A computer-readable medium as recited in claim 1, the method further comprising:

establishing a direct connection that bypasses the server; and

switching communication of the feature session to the direct connection.

3. A computer-readable medium as recited in claim 2, wherein establishing a direct connection comprises choosing a transport bridge based on a network configuration.

4. A computer-readable medium as recited in claim 1 wherein creating a virtual channel comprises multiplexing the feature session and the master session over the first connection.

5. A computer-readable medium as recited in claim 4 wherein the multiplexing comprises appending a feature session identifier to data in the feature session and a master session identifier to data in the master session.

6. A computer-readable medium as recited in claim 1 wherein creating a master session comprises initializing the master session using a session layer protocol (SIP), wherein the SIP uses an email address to initialize the master session.

7. A system for network communication, the system comprising:

a plurality of transport bridges, each transport bridge corresponding to an active network device configuration; and

a switching module operable to choose one of the transport bridges to form a connection between two computing devices based on the active network device configuration.

8. A system as recited in claim 7 wherein the active network device configuration comprises at least one firewall between the first computing device and the second computing device.

9. A system as recited in claim 7 wherein the active network device configuration comprises at least one network address translator between the first computing device and the second computing device.

10. A system as recited in claim 7 wherein the plurality of bridges comprise at least one of:

a reliable user datagram protocol bridge;

a transmission control protocol/internet protocol (TCP/IP) bridge; and

a switchboard bridge.

11. A system as recited in claim 7 further comprising:

a feature; and

a master session operable to create a feature session associated with the feature.

12. A system as recited in claim 11 further comprising a transport layer operable to multiplex feature data and master session data across, and communicate the multiplexed data via the chosen transport bridge.

13. A transport protocol stack for use by an instant messaging application, the transport protocol stack comprising:

a bridge layer comprising a plurality of bridge modules, each bridge module corresponding to an active network device configuration; and

a switching module operable to dynamically select one of the bridge modules based on the active network device configuration.

14. A transport protocol stack as recited in claim 13 further comprising a detection module operable to detect the active network device configuration.

15. A transport protocol stack as recited in claim 13 wherein the detection module comprises an echo server.

16. A transport protocol stack as recited in claim 13 further comprising a transport layer operable to multiplex data from a plurality of sessions via the selected one of the bridge modules.

17. A transport protocol stack as recited in claim 13 further comprising a master session operable to create one or more feature sessions corresponding to features of the instant messaging application.

18. A computer-readable medium having stored thereon computer-executable instructions for performing a method comprising:

establishing an instant messaging session between a first client computer and a second client computer via a switchboard server;

automatically establishing a peer-to-peer connection;

transmitting first data associated with the instant messaging session via the switchboard server; and

transmitting second data associated with the instant messaging session via the peer-to-peer connection.

19. A computer-readable medium as recited in claim 18, the method further comprising:

determining an active network device configuration associated with the first client computer and the second client computer; and

selecting a peer-to-peer bridge corresponding to the active network configuration.

20. A computer-readable medium as recited in claim 18 wherein the peer-to-peer bridge comprises an RUDP bridge.

21. A computer-readable medium as recited in claim 19 wherein the peer-to-peer bridge comprises a TCP/IP bridge.

22. A computer-readable medium as recited in claim 18 further comprising:

transmitting a first portion of a blob of the first data via the switchboard server; and

transmitting a subsequent portion of the blob of the first data via the peer-to-peer connection.